

A1
1. A method for assessing muscle damage in a subject, comprising:
obtaining a biological sample from a subject being assessed for muscle damage;
evaluating for the presence or absence of a myofilament protein modification
product in [the] a biological sample obtained from a subject being assessed for muscle damage.

2. The method of claim 1, [further comprising the step of] wherein the evaluating step comprises assessing the amount of the myofilament protein modification product present in the biological sample, as an indication of the extent of muscle damage in the subject.

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4. The method of claim 3, [further] comprising [the step of] assessing the amounts of said at least two different myofilament protein modification products present in the biological sample, and comparing the amounts as an indication of the extent of muscle damage in the subject.

A3
7. The method of claim 6, [further] comprising [the step of] assessing the ratio of said at least two different myofilament protein modification products, as an indication of the extent of muscle damage in the subject.

8. The method of claim 1, wherein [the step of] evaluating for the presence or absence of a myofilament protein modification product comprises incubating the biological sample with a compound which specifically binds to the myofilament protein modification product, under conditions which allow the compound to form a complex with the myofilament protein modification product, and detecting the complex.

A4
41. A method for assessing muscle damage in a subject, comprising:
[obtaining a biological sample from a subject being assessed for muscle damage;]
incubating [the] a biological sample obtained from a subject being assessed for muscle damage with at least one compound which specifically binds to one or more different myofilament proteins or myofilament protein modification products present in the sample, under conditions which allow the compound to form one or more complexes with the myofilament proteins or myofilament protein modification products;
detecting said one or more complexes; and
characterizing the profile of said one or more myofilament proteins or myofilament protein modification products contained in said one or more complexes, as an indication of the extent or type of muscle damage in the subject.